

Notice of Allowability

Application No.

10/086,238

Applicant(s)

BOWDEN ET AL.

Examiner

Art Unit

Sean E. Vincent

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone interview of August 31, 2004.
2. ☒ The allowed claim(s) is/are 1-10,12,14,15,17,18,20 and 28-38.
3. ☒ The drawings filed on 27 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Kevin Able on August 31, 2004.
3. The application has been amended as follows:

In the specification:

On page 7, line 16, after "Container 100 is ", --hermetically-- has been inserted.

In the claims:

Claim 13 has been canceled.

The following claims were presented in a standard claim listing by the applicant and are approved by the examiner:

1. **(Currently Amended)** A method for forming an optical blank, the method comprising:
 - providing a porous green body;
 - heating the porous green body to form a non-porous exterior portion and composite body having an a porous exterior portion which is non-porous and an interior portion which is porous;
 - forming a vacuum in the porous interior portion; and
 - pressing the composite body portions using a hot isostatic pressing technique, whereby the composite body portions are densified into a solid glass optical blank.

9. **(Currently Amended)** The method of claim 1, wherein the step of forming a vacuum comprises:

- fusing a stem onto the ~~composite body~~ portions;
- exposing the porous interior portion of ~~the composite body~~;
- drawing a vacuum on the porous interior portion of ~~the composite body by evacuating the porous interior portion~~ via the stem; and
- hermetically sealing the ~~composite body~~ portions.

10. **(Currently Amended)** A method for forming an optical blank, the method comprising:
mixing glass particles comprising a glass soot with water to form an aqueous suspension;
pouring the aqueous suspension in a mold, the suspension being allowed to cast in the mold for a predetermined time, whereby a green body wall is formed;

removing remaining aqueous suspension from the mold to form a ~~hollow~~ porous green body;

drying the porous green body;

heating the porous green body to form a ~~composite body having a non-porous exterior portion and a porous interior portion, the porous interior portion defining a cavity~~;

disposing a glass powder in the cavity, the glass powder having substantially the same material composition as the glass particles;

applying a vacuum to the cavity; and

pressing the ~~composite body~~ portions about the glass powder using a hot isostatic pressing technique, whereby the ~~composite body is~~ portions and the glass powder are densified into a solid glass optical blank.

14. **(Currently Amended)** The method of claim 13 10, wherein the step of applying includes hot isostatic pressing the ~~composite body~~ portions at a temperature above the annealing point of the glass particles but below the softening point of the glass particles.

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15. **(Currently Amended)** The method of claim 14, wherein the step of applying includes the step of raising the temperature of the ~~composite body~~ portions above the melting temperature of the glass particles to thereby remove any solid inclusions.

34. **(Currently Amended)** A method for forming an optical blank comprising:
providing a porous green body comprising a glass soot;
heating the body to form a non-porous exterior portion ~~while maintaining~~ and a porous internal portion;
fusing a glass stem to the ~~body~~ portions;
exposing the porous internal portion ~~of the body~~ through the glass stem;
forming a vacuum in the porous internal portion ~~of the body~~; and
pressing the ~~body~~ portions using a hot isostatic pressing technique, whereby the ~~body is~~ portions are densified into a solid glass optical blank.

36. **(Currently Amended)** A method for forming an optical blank comprising:
forming an aqueous suspension comprising a glass soot;
casting the aqueous suspension in a mold to form a porous green body;
heating the body to form a non-porous exterior portion ~~of the body while maintaining~~ and a porous interior portion;
forming a vacuum in the porous internal portion ~~of the body~~;
plastically deforming the ~~body~~ portions using a hot isostatic pressing technique, whereby the ~~body is~~ portions are densified into a solid glass optical blank

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Vincent whose telephone number is (571) 272-1194. The examiner can normally be reached on M - F (8:30 - 6:00).

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5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sean E Vincent
Primary Examiner
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S Vincent